

$$y = -\frac{3}{2}x + 2$$

$$y = -\frac{3}{2}x + \frac{13}{2}$$

Bellwork: 11/12/12

Write the equation of the line that is parallel to  $3x + 2y = 13$  and goes through the point  $(2, -1)$

$$2y = -3x + 13$$

$$y = -\frac{3}{2}x + \frac{13}{2}$$

$$m_{//} = -\frac{3}{2}$$

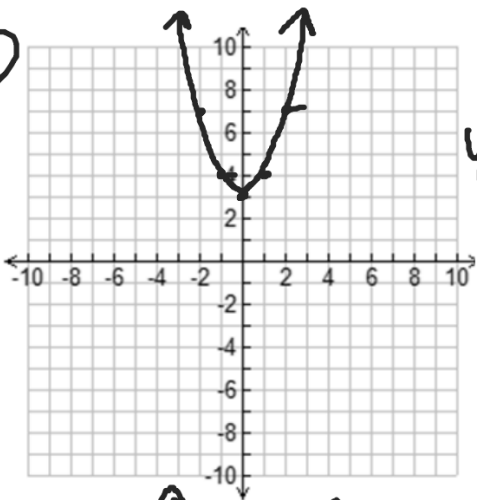
$$y + 1 = -\frac{3}{2}(x - 2)$$

$$y + 1 = -\frac{3}{2}x + 3$$

$$\begin{array}{cc} -1 & -1 \end{array}$$

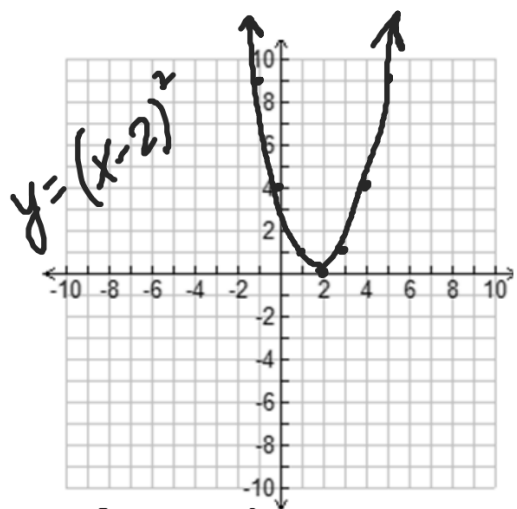
$$y = -\frac{3}{2}x + 2$$

15



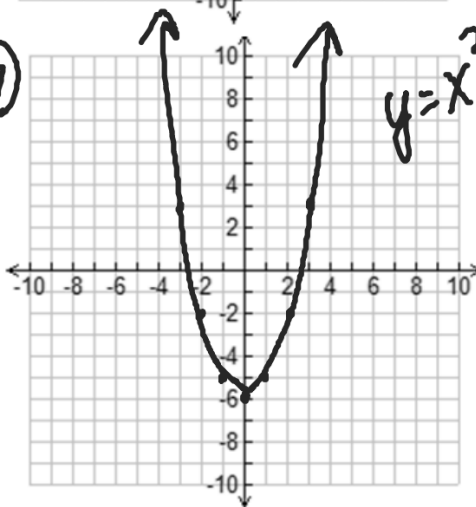
16

$$y = x^2 + 3$$



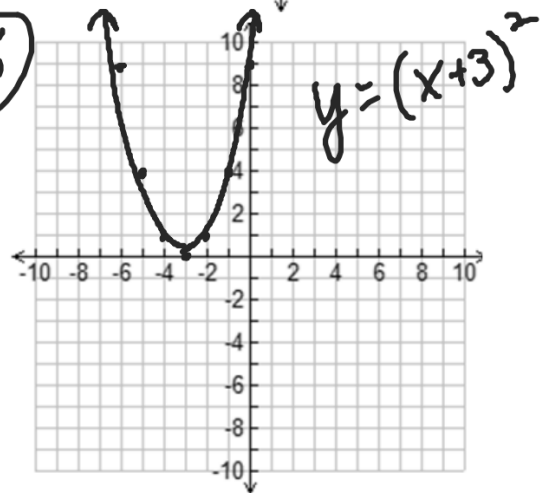
$$y = (x - 2)^2$$

17



$$y = x^2 - 6$$

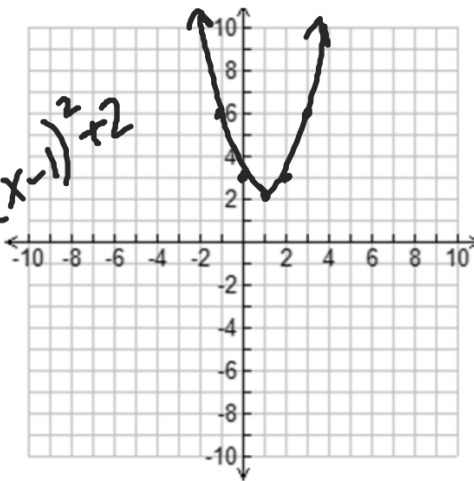
18



$$y = (x + 3)^2$$

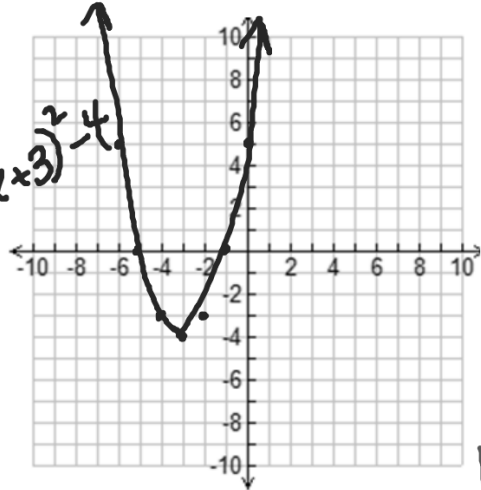
29

$$y = (x-1)^2 + 2$$



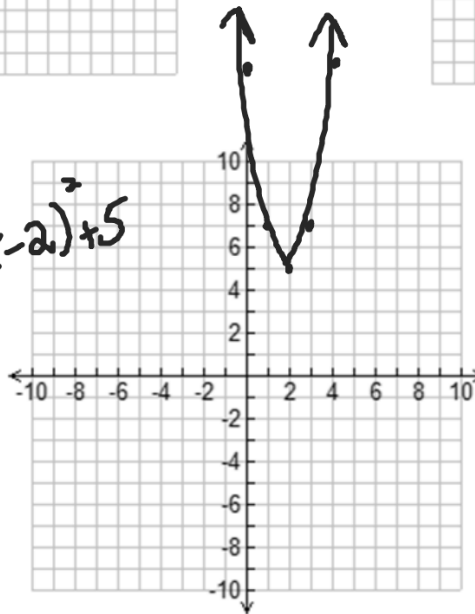
30

$$y = (x+3)^2 - 4$$



31

$$y = 2(x-2)^2 + 5$$



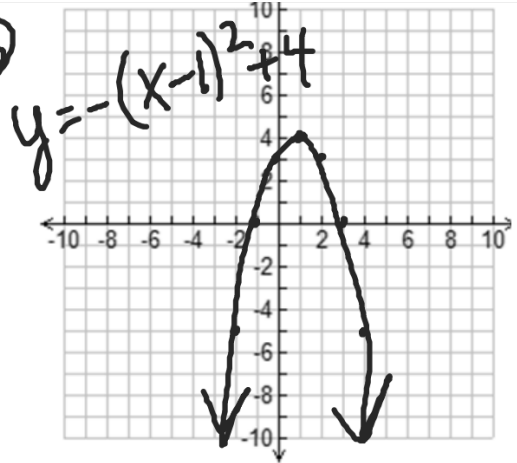
$(h, k)$  over 1 up  $\times$  2  
 $(2, 5)$  over 2 up  $\times$  8

32

$$y = -3(x+7)^2 - 8$$

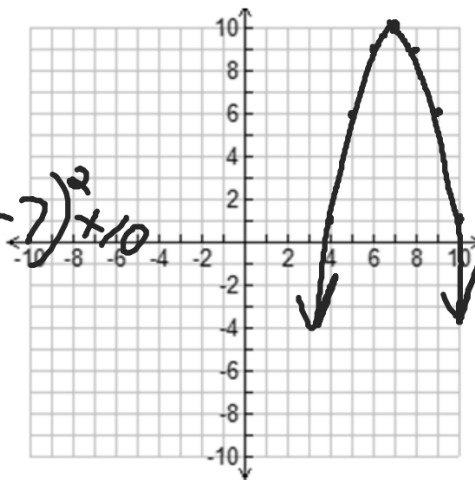


33

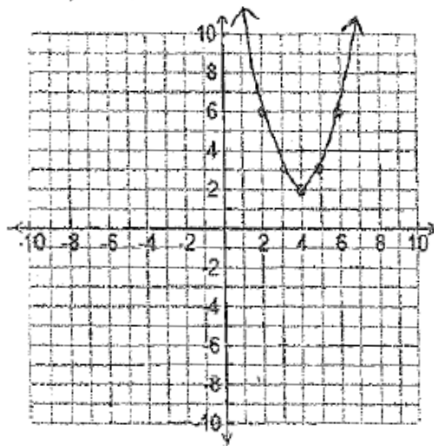


34

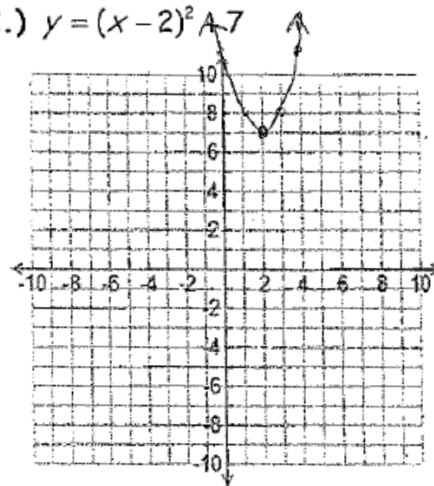
$$y = -(x-7)^2 + 10$$



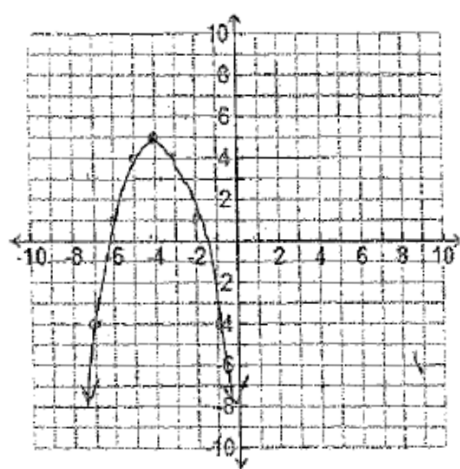
1.)  $y = (x - 4)^2 + 2$



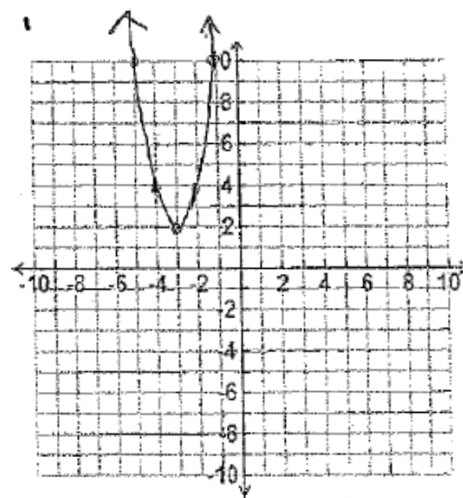
2.)  $y = (x - 2)^2 + 7$



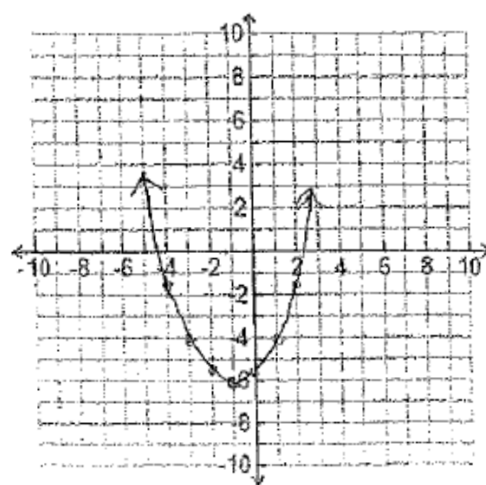
3.)  $y = -(x+4)^2 + 5$



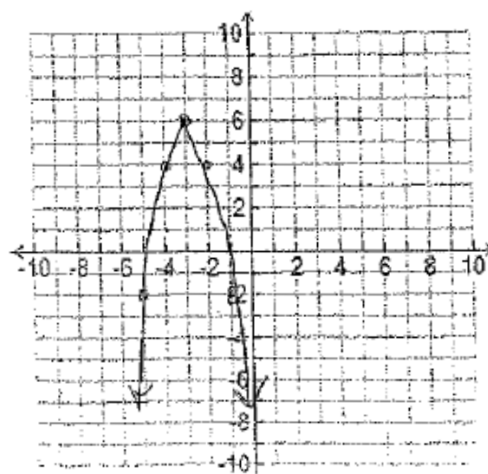
4.)  $y = 2(x+3)^2 + 2$



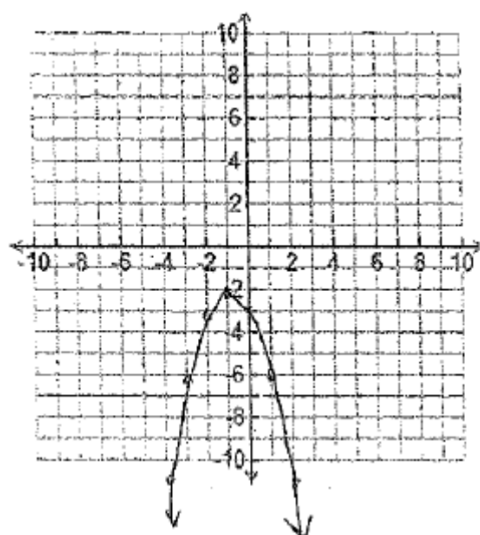
5.)  $y = \frac{1}{2}(x+1)^2 - 6$



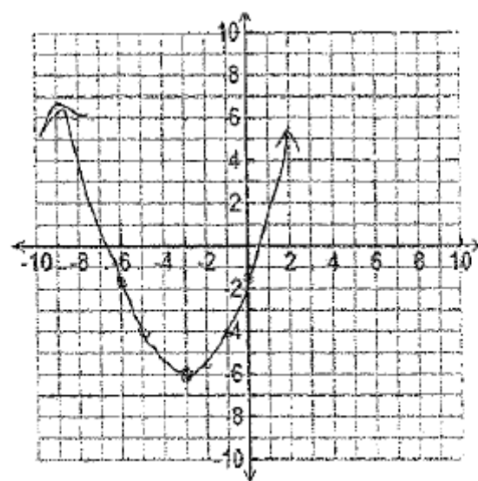
6.)  $y = -2(x+3)^2 + 6$



7.)  $y = -(x+1)^2 - 2$

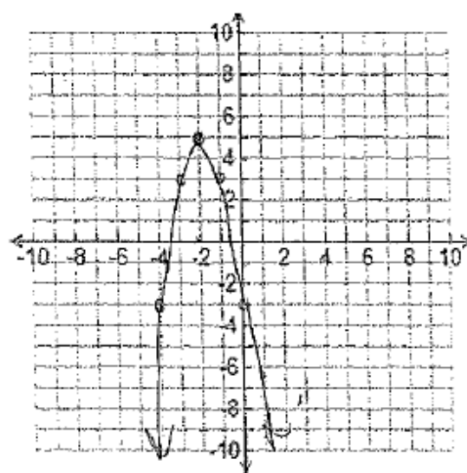


8.)  $y = \frac{1}{2}(x+3)^2 - 6$

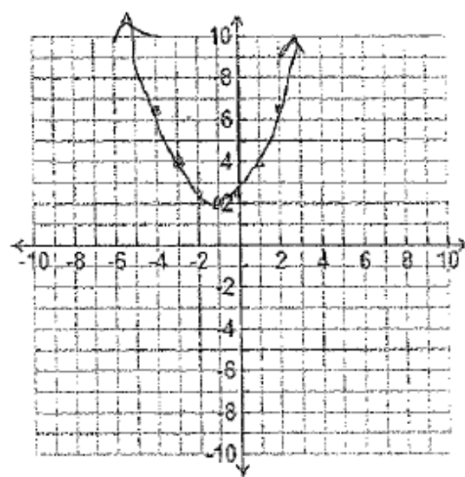




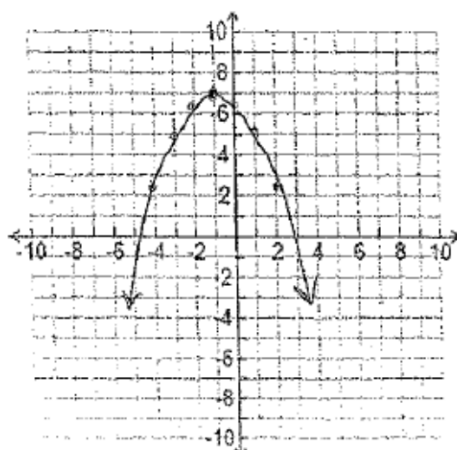
9.)  $y = -2(x+2)^2 + 5$



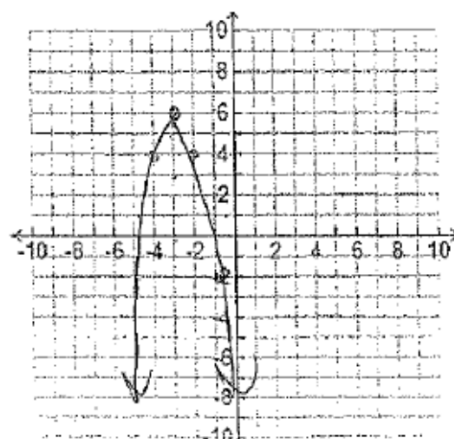
10.)  $y = \frac{1}{2}(x+1)^2 + 2$



11.)  $y = -\frac{1}{2}(x+1)^2 + 7$

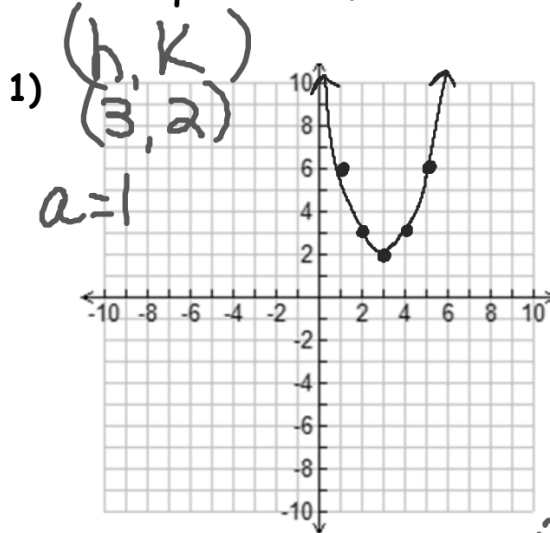


12.)  $y = -2(x+3)^2 + 6$

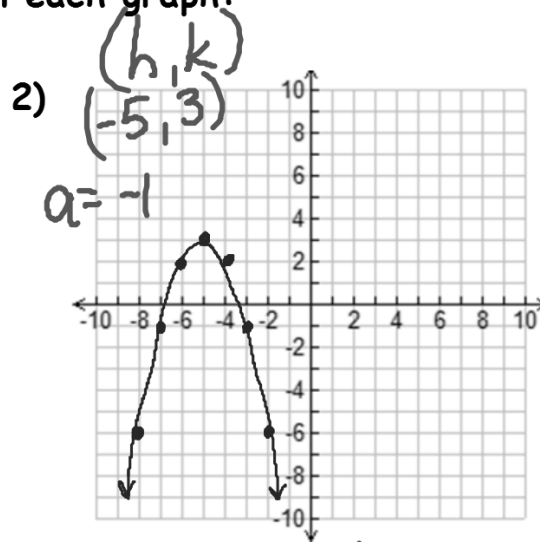


## Section 4.1 - Using Vertex Form to Understand Graphs:

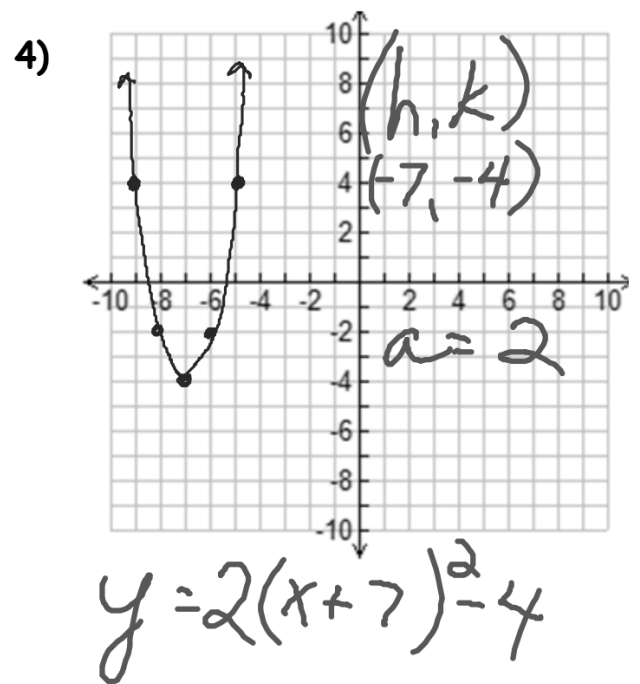
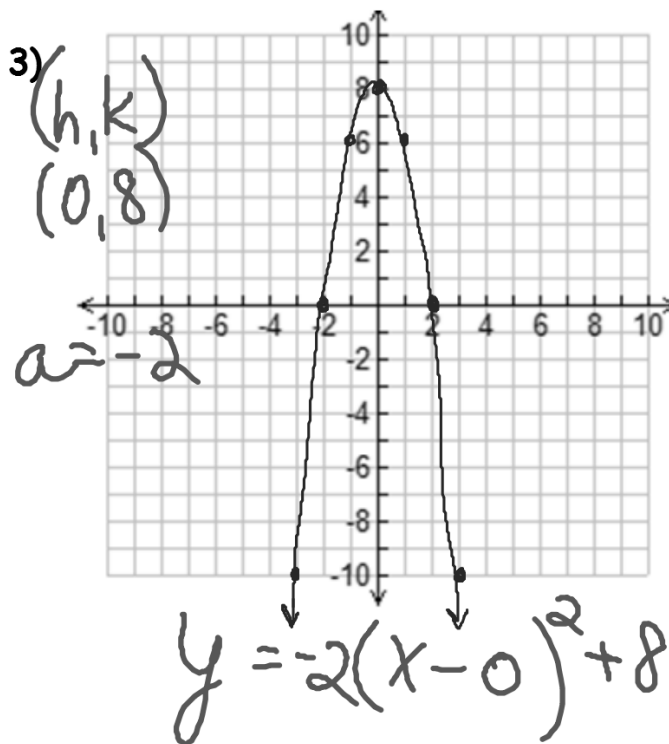
Write a quadratic function to model each graph:



$$y = 1(x - 3)^2 + 2$$



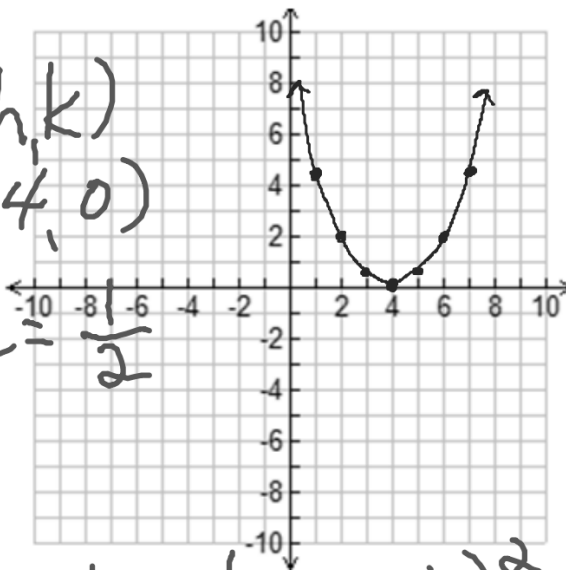
$$y = -(x + 5)^2 + 3$$



5)

 $(h, k)$   
 $(4, 0)$ 

$$a = \frac{1}{2}$$

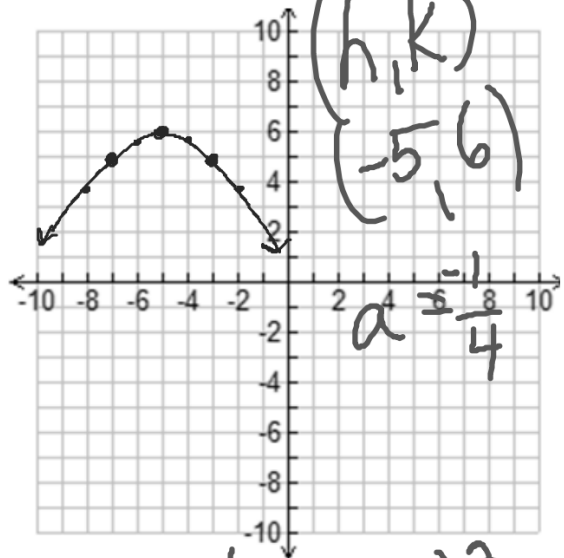


$$y = \frac{1}{2}(x - 4)^2 + 0$$

6)

 $(h, k)$   
 $(-5, 6)$ 

$$a = -\frac{1}{4}$$



$$y = -\frac{1}{4}(x + 5)^2 + 6$$

over 2 ~~up~~ <sup>down</sup> 1

